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ABSTRACT

A study evaluated the effectiveness of the first two years of the Reading Recovery program at the McAllen Independent School District, Texas. Thirteen campuses participated in the first year (1991-92) while 16 campuses participated in 1993. In addition, the Literacy Program, designed to expand the positive effects of Reading Recovery strategies in a different format, was started at seven Chapter 1 campuses, where appropriate data from the first two years of the Reading Recovery program were contrasted. Results indicated: (1) students who completed the program in 1992 and 1993 had a high discontinued exit rate (89% and 86%); (2) students served in the second year had a better than average chance of not being retained in the first grade; (3) all discontinued Reading Recovery students showed growth on a diagnostic survey; (4) Iowa Tests of Basic Skills scores for students in both years were in the second quartile instead of the bottom quartile as expected without intervention; (5) teachers, parents, and administrators felt the program was very effective; and (6) the program had a long-term cost benefit to the school, the student, and society. Fourteen figures of data are included with an appendix of data. (RS)

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EXECUTIVE SUMMARY

McALLEN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

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Reading Recovery ®1992-93 Evaluation Report

Program Description

Reading Recovery, a National Diffusion Network Program, is based on the assumption that intensive, high-quality help during the early years of schooling is the most productive investment of resources. The early years, which set the stage for later learning, are particularly critical for children who are at risk of failure. Reading Recovery, which was developed and initiated by New Zealand educator and psychologist, Marie M. Clay, provides a second chance in reading for young children who are at risk of failure in their first year of reading instruction. Individually administered diagnostic procedures are used to identify children in need of special help. Intervention procedures are then individually tailored to help a failing child become a successful reader.

The McAllen Independent School District Reading Recovery Program was first implemented during the 1991-92 school year. The 1992-93 school year marked the second year of implementation. Thirteen campuses participated in the first year while sixteen campuses participated in 1993. In addition, the Literacy Program, designed to expand the positive effects of Reading Recovery strategies in a different format, was started at seven Chapter 1 campuses. Finally, a Spanish Reading Recovery Program was initiated, but due to the early transition of the students being served, the program was temporarily held in abeyance.

Major Findings

- Students who completed the Reading Recovery Program in 1992 and 1993 had a high discontinued exit rate (89% & 86%). This implies that they are on-grade level in reading.
- The second year of Reading Recovery reveals that students who were served had a better than average chance of not being retained in first grade. Also, a larger number of students are being served in a shorter period of time due to more efficient program implementation.
- MISD had 39% more Reading Recovery teachers in 1992-93 than in 1991-92. These teachers (32) represented a highly trained and specialized group of reading specialists.

- All discontinued Reading Recovery students showed growth on the Diagnostic Survey. The average first grade 1991-92 and first grade 1992-93 Reading Recovery student was reading at a beginning second grade level, when discontinued, as measured by the test.

- ITBS scores for 1992 and 1993 discontinued Reading Recovery students were 11 and 8 NCE points lower respectively than the MISD average. Both averages were in the second quartile for both years. It would be expected that discontinued Reading Recovery students would have been in the bottom quartile had the interventions of Reading Recovery instruction not been provided.

- Each group of discontinued Reading Recovery students in 1992 and in 1993 scored within the same normal curve equivalent range on the ITBS (38.8 vs 37.6 NCE's).

- A diagnostic test was administered to random groups of Reading Recovery second graders and non-Reading Recovery second graders. The test revealed that there were no significant differences between the two groups. ITBS scores, on the other hand, revealed a significant difference, although both groups were represented at the second quartile.

- Reading Recovery training for teachers consisted of a comprehensive program with an intensive focus on reading strategies.

- Questionnaires administered to teachers, parents, and administrators indicated the Reading Recovery program to be very effective.

- A cost-effectiveness analysis by an educational researcher, Philip Dyer, revealed that the Reading Recovery Program has a long-term cost benefit to the school, the student, and society.

- The Literacy Program served 314 students. Retention rates for these students were low.

- The diagnostic test administered to three literacy groups consisting of Reading Recovery waiting list students, first grade retainees, and second grade low performing students revealed that the discontinued retainees were not reading on level. One year of retention plus the Literacy Program had only brought the retainees to a beginning first grade reading level. The other two groups were at grade level.

- Low reading ITBS scores did not correlate to the second grade discontinued students' on-grade level reading scores on the Diagnostic Test. The Diagnostic Test is a criterion-referenced test intended for first graders, while ITBS is a norm-referenced test.

- Because of the early transition for Bilingual Reading Recovery students, the Spanish Reading Recovery Program/Descubriendo La Lectura was not implemented as it was intended. No data is available to evaluate the program.

- Reading Recovery is a <u>supplementary</u> reading program which should be taught in addition to the language arts program, and not in place of the program.

COST BENEFIT
1991-92

Program Name	Allocation	Number of Students Served	Cost Per Student
Reading Recovery	$495,055	195	$2,538

Funding Source	Grade	Level of Service:
External (State Compensatory Education)	1st	School Year

COST BENEFIT
1992-93

Program Name	Allocation	Number of Students Served	Cost Per Student
Reading Recovery	$554,082	243	$2,280

Funding Source	Grade	Level of Service:
External (State Compensatory Education)	1st	School Year

COST BENEFIT
1992-93

Program Name	Allocation	Number of Students Served	Cost Per Student
Literacy Program	$201,540	314	$642

Funding Source	Grade	Level of Service:
External (Chapter 1)	1st and 2nd	School Year

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GLOSSARY OF DEFINITIONS

Completed Program Children - students who received a complete program (60 lessons), but were not successfully discontinued.

Criterion Referenced Test - a measurement used to diagnose difficulties or to find out what students have achieved in absolute terms. A CRT's main concern is whether or not students have achieved the criterion established.

Dependent Measures - variables used to determine the effects of a program. This often refers to test scores.

Diagnostic Survey - a three part pre- and post-test utilized by the Reading Recovery Program to determine placement as well as gains achieved by participating students.

Discontinued Reading Recovery Children -children who successfully completed the program and who were officially released during the year or who were identified as having met criteria to be released at the final testing in May.

Transition - a term denoting that bilingual students will be taught primarily in English while instruction in Spanish will be maintained to a lesser degree.

Iowa Test of Basic Skills (ITBS) - a norm-referenced test used in the McAllen ISD in the 1st and 2nd grades primarily for Chapter 1 purposes.

Norm-Referenced Test - a test that produces a score that tells us how the individual's performance compares with other individuals. Tables of norms based on the scores obtained by relevant groups of subjects are provided.

Not Discontinued Reading Recovery Children - students who may or may not have completed all 60 or more lessons and were discontinued for various reasons including moving from the school, not having time to complete a program before the end of school, being placed in another program such as special education, or not responding adequately to the program after twenty weeks of instruction.

Random Sample - a sample of the targeted population in which all members of the population have an equal chance of being selected.

Reading Recovery Program Children - children who have received 60 or more lessons in Reading Recovery and/or were discontinued from the program.

Significance - a statistical term used to indicate a true difference which is not due to error. Significance is based on probability.

Standard Deviation - a measure of variability which is the fluctuation of scores about a measure of central tendency.

T Test - a measure used to determine statistical significance.

OVERVIEW OF THE MCALLEN INDEPENDENT SCHOOL DISTRICT READING RECOVERY® PROGRAM

Reading Recovery, a National Diffusion Network Program, is an early intervention program designed to reduce reading failure for children who are at risk of failure. It is based on the assumption that intensive, high-quality help during the early years of schooling is the most productive investment of resources for the future. Research has borne out that after an average of 12 to 16 weeks in the program, most Reading Recovery children have caught up with their peers and need no further extra help, and that three years after the instruction, Reading Recovery children have still retained their gains and continued to make progress at average rates. The program recognizes that good readers and writers develop early, and strongly warns that the common solutions of retention and remediation, accompanying several years of failure, do not enable children to catch up with peers (Clay, 1985).

A Diagnostic Survey along with "trained" teacher identification are used in the selection process. The program targets the poorest readers in the class. In addition to their regular classroom activities, children are provided one-to-one lessons for 30 minutes each day by a teacher specially trained to help children develop effective reading strategies. The students are provided instructional opportunities to become fluent and flexible with what they already know; instruction is built on the child's strengths. Finally, as teachers receive training, they simultaneously implement the program.

In order for Reading Recovery Program students to be successfully discontinued, they must meet the following criteria:

- meet predetermined scores on the Diagnostic Survey, a criterion-referenced reading test.
- be certified as reading-ready based on observations by Reading Recovery teachers, classroom teachers and a Reading Recovery teacher leader.

The Reading Recovery Program completed its second year in MISD. This evaluation examines data collected during the 1991-92 and 1992-93 school years. An examination of norm-referenced data (ITBS) is included. The Reading Recovery program in 1991-92 consisted of 13 campuses and 23 teachers. The program in 1992-93 served the same campuses plus three additional campuses and has now expanded its staff to 32 teachers. The role of the teachers has also changed. Two new branches of Reading Recovery have been added in order to serve a larger population. Of the 32 teachers, twenty taught four Reading Recovery students only, and alternated two regular classrooms with a partner to account for a full load of students during the course of each day. The other 12 teachers also worked with four Reading Recovery students for two hours a day, but instead of having a regular class for the rest of the day, they taught literacy lessons for 18 specially identified students who fit one of the three following groups: first grade waiting list students, first grade retainees, and low performing second graders. These identified students were provided instruction under the rubric of Literacy Groups I, II, or III. All teachers working in the program taught 22 students each day, but in different settings and time periods.

The Literacy Program utilizes most of the same strategies which are employed in Reading Recovery and developed by Marie M. Clay. The main differences are that the Literacy Program does not work with one student intensively for thirty minutes, but groups six students in 45 minute blocks of time; the other major difference is that the Literacy Program can serve second graders. In both the Reading Recovery Program and the Literacy Program, each teacher is responsible for 22 students in the course of each school day.

The 1992-93 school year was an ambitious one. In addition to the implementation of Reading Recovery for first grade students and Literacy Groups for the aforementioned three targeted populations, a Spanish Reading Recovery/Descubriendo La Lectura was also implemented. The program began in September and terminated in November due to the unanticipated transition of first grade bilingual students in all the participating schools during the latter part of October.

The evaluation in the following pages will examine individually the Reading Recovery Program, the Literacy Program, and the Spanish Reading Recovery/Descubriendo La Lectura. Where applicable both school years will be contrasted.

READING RECOVERY®

What are the objectives of the Reading Recovery program?

- To identify beginning first graders who are at risk of failure in their reading instruction, and to target the bottom twenty percent for a one-time intervention utilizing Reading Recovery strategies.
- To provide specialized reading instruction in a supplemental pull-out program lasting on average between twelve to sixteen weeks.
- To provide each student thirty minutes of individualized daily intensive instruction by a highly trained teacher in Reading Recovery strategies.
- To successfully discontinue (exit) from Reading Recovery as many at-risk first grade students as possible during the course of a school year.
- To lower retention rates and the placement of students into special programs such as Chapter One or Special Education, and thereby reduce long term costs for the school district.
- To maintain long term sustained progress for discontinued Reading Recovery students.

How many students were served by how many teachers in Reading Recovery? Of this number how many completed the program, and how many were successfully discontinued? What was the average length of treatment, and how many students were retained?

The information for the above mentioned questions is depicted in Figure 1. An examination of these data indicate that as the program entered its second year, its services and efficiency have expanded. This conclusion is based on the number of students served which has increased from 195 to 241; the number of teachers serving those students has increased from 23 to 32 (12 of the 32 are also working in the Literacy Program); and the average length to complete the program has decreased from seventeen weeks to thirteen weeks. In addition, one student out of 139 for the 1992-93 school year was retained.

FIGURE 1

READING RECOVERY FACTS AND FIGURES

	1991-92	1992-93
Total number of students served	195	243
Total number of Reading Recovery teachers	23	32
# of students who completed program (60 lessons)	121 or 62%	162 or 67%
# of students who successfully discontinued	108 or 89%	139 or 86%
# of students who did not complete program	74 or 38%	81 or 34%
Average time of complete program (60 lessons)	17.1 wks	13.2 wks
Number of students who were referred to special assistance programs	7	24
Number of students who completed program and were retained	13 or 10.7%	1 or .006%

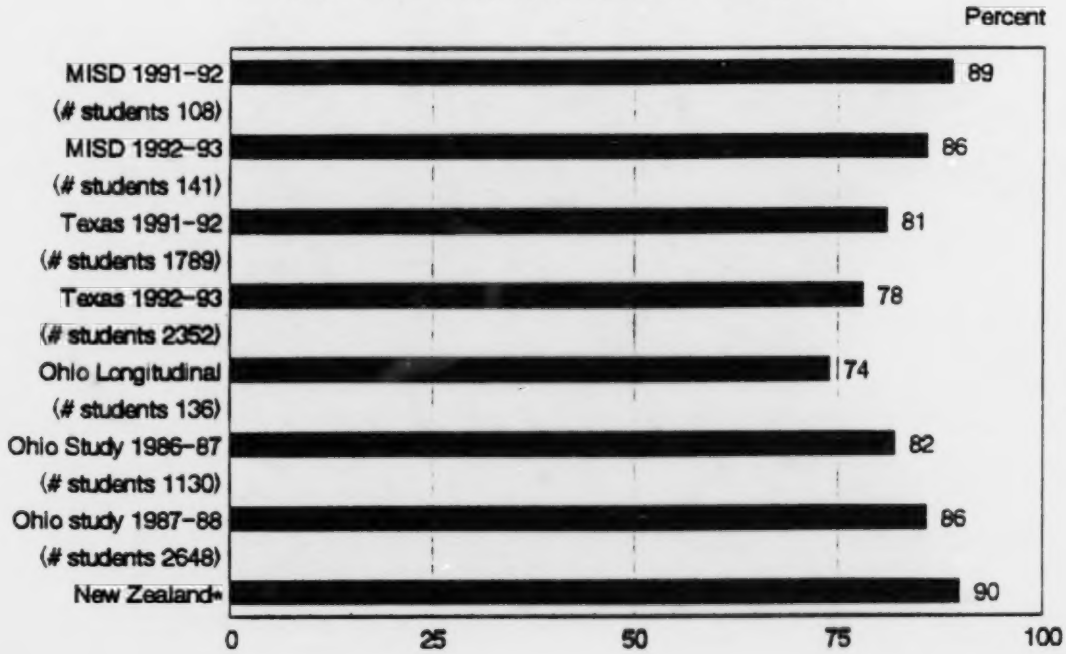
Demographic data reveals that in 1991-92, 38% of the discontinued students were LEP and 63% were economically disadvantaged. In 1992-93, the demographics of the discontinued students were similar: 37% were LEP and 69% were economically disadvantaged. In addition, all Reading Recovery children in MISD have had at least one year of kindergarten prior to entering the program.

The number of students successfully discontinued in MISD was high. In 1991-92, MISD discontinued 89% of those students who completed the entire program (60 lessons), while 86% were discontinued in 1992-93. Texas students discontinued at an 81% and 78% rate during the 1992 and 1993 school years respectively. The MISD program appears to be more successful than other Reading Recovery programs across the state (see Figure 2).

New Zealand children were discontinued at a 90% rate (Pinnell, 1988, 27). The Columbus Longitudinal study had a 74% discontinued rate for 136 children. One study in the state of Ohio in 1986-87 had an 82% rate for 1130 students, and another study in 1987-88 of 2648 children showed an 86% discontinued rate (Pinnell, 1988, 27-29). The discontinued rate for MISD students is obviously on par with widely conducted major research studies and surpasses Texas' averages.

FIGURE 2

PERCENTAGE OF SUCCESSFULLY DISCONTINUED STUDENTS IN MISD AND OTHER RESEARCH STUDIES



*Number of students unavailable

The average time for students to complete the program in 1991-92 to 1992-93 decreased from approximately 17 to 13 weeks. This is probably a consequence of teachers becoming more familiar and proficient with the implementation of the program.

The Reading Recovery Program is very helpful in assisting with the early identification and referral of students needing special assistance. As students are serviced, certain problems can be more readily discerned and proper action taken because the program is individualized and the Reading Recovery teacher is a trained specialist.

The number of 1991-92 Reading Recovery retainees (10.7%) was approximately equal to the 1991-92 MISD's average of 10% in Grade 1. Four of these thirteen retainees are now in special education; one was diagnosed as having a serious hearing problem and is receiving speech therapy; and the rest of the students were retained because of poor grades. These students entered the program towards the end of the year after their final grades were already predetermined by the classroom teachers. Yet, these students still demonstrated successful reading as evidenced by the Diagnostic Survey and their exit from the program. The 1992-93 retainee rate for Reading Recovery Program students was one student out of 139 discontinued students. This meets one of the major objectives of the Program.

How did Reading Recovery Students fare on the Diagnostic Survey?

The Diagnostic Survey is a pre-and post-test used for both placement as well as to measure learning growth of first grade students. The Diagnostic Survey is similar to a criterion-referenced assessment. This particular survey employs observation procedures which need to be used together with teacher insight in order to be useful. The pivotal observation is a continuous record of text reading. These observations reveal an analysis of useful strategies employed by the student as well as problematic areas of interference. The survey assesses strategies which deal with text reading, writing words, and hearing and recording sounds. The Text Reading part of the test determines the reading level of the student and is used to show growth.

The reliability of the Diagnostic Survey averages in the mid 90's, and its validity is correlated with other reading tests in the high 80's. Reading Recovery children who outgained a control group in Saginaw, Michigan (1992) on the Diagnostic Survey also outgained the matched control group on the three reading subtests of the California Achievement Test (CAT). In order for Reading Recovery Program students to be successfully discontinued, they must meet the following criteria:

- meet predetermined scores on the Diagnostic Survey, a criterion-referenced reading test.
- be certified as reading-ready based on observations by Reading Recovery teachers, classroom teachers, and a Reading Recovery teacher leader.

Figure 3 depicts significant gains on the pre- and post-Diagnostic Survey for successfully discontinued students.

FIGURE 3

PRE-POST MEAN SCORE COMPARISON ON THE DIAGNOSTIC SURVEY

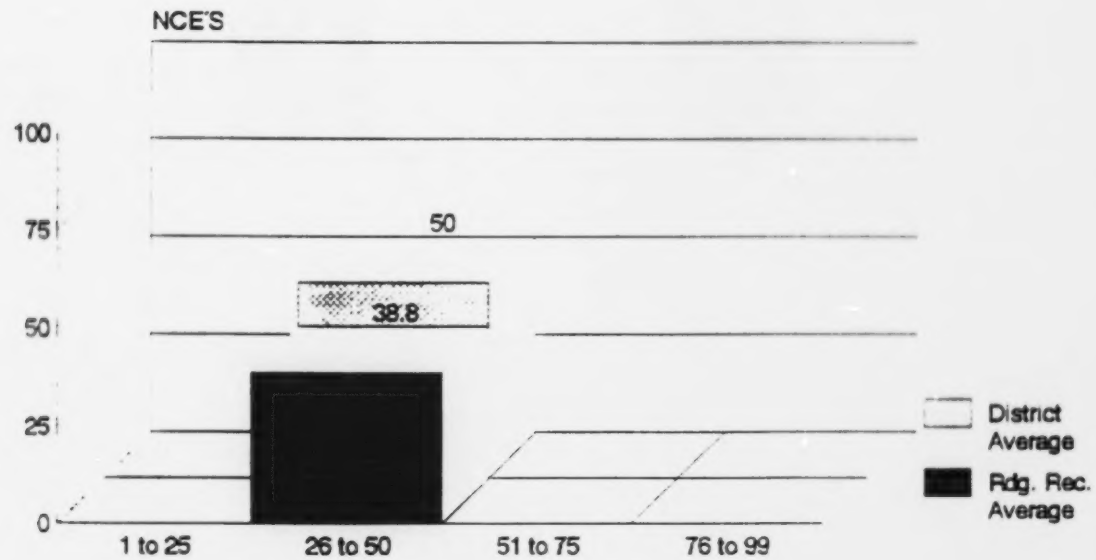
	1991-92	1992-93
Writing	Mean	Mean
Fall	5.72	8.85
Spring	53.12	60.96
Dictation		
Fall	8.32	11.78
Spring	34.37	34.65
Text Reading		
Fall	0.77	1.10
Spring	18.00	17.15

The post-test scores reveal that the discontinued Reading Recovery students can read a text comparable to that read by average children in the beginning of their second year; that they can write two or more sentences for their stories; that they can check their own written accounts independently as well as the stories they write; and that they have a strategy for matching sounds to letters. The results of the Diagnostic Survey of each student are used to determine individual growth for program discontinuation.

How do the 1991-92 reading achievement scores obtained by Reading Recovery students on the ITBS test compare with other MISD students?

In 1991-92, MISD's first graders averaged 50 NCE's on ITBS Form J. Discontinued Reading Recovery students averaged 38.8 NCE's. Although, there was a significant difference of 11 NCE's, both groups were in the upper end of the second quartile. One would expect the Reading Recovery students to average in the bottom quartile, yet this was not the case. Figure 4 shows the 1992 ITBS scores.

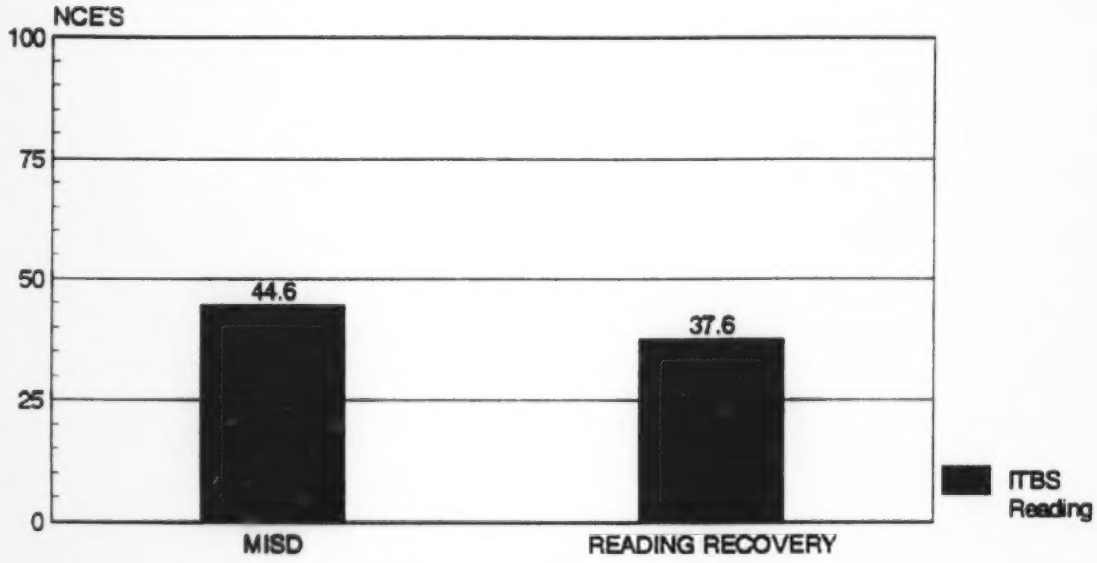
FIGURE 4
ITBS FIRST GRADE READING SCORES
FORM J
SPRING 1992



In 1992-93, MISD's first graders averaged 44.6 NCE's on ITBS. Discontinued Reading Recovery students averaged 37.6 NCE's. This average is consistent with the 1991-92 results. The decrease in NCE points for years 1992 to 1993 both for the District and for Reading Recovery may be attributed to the more recent ITBS norms for Form K versus Form J.

FIGURE 5

ITBS FIRST GRADE READING SCORES
FORM K
SPRING 1993



What were the results of a Diagnostic Test administered to a random sample of Reading Recovery students and a random sample of non-Reading Recovery students?

In Spring 1993 fifty second grade students were randomly selected from the 108 successfully discontinued students of 1991-92. A like-group of fifty non-Reading Recovery students were also randomly selected. The Diagnostic test consisted of three parts: Spelling, Dictation and Text reading. The results showed that the means (X) were very close. T-tests were run by Office of Research & Evaluation to determine if the differences of the means were significant. The T-tests indicate that there were no significant differences between the two samples on all three tests. The random sample of second grade Reading Recovery students' scores on the Diagnostic Test indicated that they had maintained their gains from the previous year. Figure 6 lists the figures.

FIGURE 6

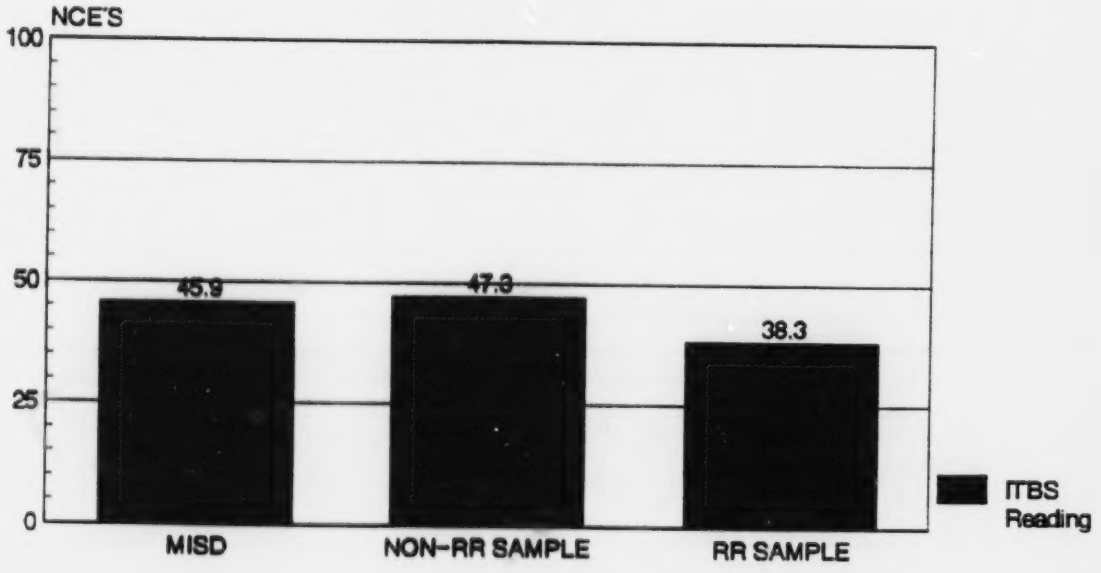
	Spelling					
Rdg. Recovery Sample	n=50	x=12.64	Σx=632	Σx^2=8,432	Range=13	SD_1= 2.97
Non-Rdg Rec. Sample	n=50	x=13.86	Σx=693	Σx^2=9,993	Range=10	SD_2= 2.78
	SD x = 1.28		T = -.90			
	To_5, DF = 98 = ± 1.98					
	Not significant, p>.05					
	Dictation					
Rdg. Recovery Sample	n=50	x=58.76	Σx=2938	Σx^2=174,046	Range=22	SD_1= 5.30
Non-Rdg Rec. Sample	n=50	x=59.78	Σx=2989	Σx^2=183,042	Range=21	SD_2= 9.33
	SD x = 1.53		T = -.66			
	To_5, DF = 98 = ± 1.98					
	Not significant, p>.05					
	Text Reading					
Rdg. Recovery Sample	n=50	x=27.48	Σx=1374	Σx^2=39,676	Range=31	SD_1= 6.19
Non-Rdg Rec. Sample	n=50	x=28.48	Σx=1424	Σx^2=42,752	Range=27	SD_2= 6.62
	SD x = 1.29		T = -0.77			
	To_5, DF = 98 = ± 1.98					
	Not significant, p>.05					

What were the ITBS reading scores of the two random samples?

ITBS scores between these two random groups was also examined. The results indicate that MISD's student averages at the second grade were 45.9 NCE's. The second grade non-Reading Recovery sample scored 47.3 NCE's, while the second grade Reading Recovery sample scored 38.3 NCE's If the Reading Recovery students had not sustained their gains, this group probably would have scored in the bottom quartile. At this point in time, Reading Recovery students are sustaining their gains and are relatively close to the district average (see figure 7).

FIGURE 7

SECOND GRADE READING ITBS READING SCORES FOR MISD AND SAMPLE GROUPS SPRING 1993



What type of training was provided for Reading Recovery Teachers?

During the 1991-92 school year, two MISD teachers were selected to train as Reading Recovery Teacher Leaders. These teachers were Analida Salinas and Irma G. Williams. Training for a Teacher Leader requires full-time participation in a residential program for an academic year at an accredited Reading Recovery Teacher Leader training site. These two teachers attended Texas Woman's University for a year-long training under the direction of Dr. Billie Askew and Dr. Dianne Frasier. The major components of the training were: (a) procedures for teaching children, (b) theory and research, (c) teacher education, and (d) management of the implementation system.

In 1991-1992, the two MISD Reading Recovery Teacher Leaders, trained twenty-three MISD teachers. MISD collaborated with the University of Texas Pan American at Edinburg for teachers-in-training to receive graduate credit during the fall and spring semesters of the 1991-1992 school year.

The teachers were trained in the procedures of the program, in observation and assessment skills, and in the application of a theoretical model of beginning reading in an intensive one-to one setting with at-risk children. Training includes working with children who are being observed behind a one-way mirror. This critical component provides for class members to observe and describe student and teacher behaviors, and also to establish problem solving strategies for decision making. The research-based training focuses on analyzing children's reading behaviors, and relating those behaviors to more general theories of literacy and learning. Collaboratively, the teachers in training build theoretical models of literacy learning that they use to guide their work with the children. Just as these teachers attempt to create self-monitoring first-grade readers, the teacher training model attempts to create self-monitoring teachers. During the 1992-1993 school year, ten new teachers were trained by the teacher leaders. Participation by the University of Texas-Pan American at Edinburg continued.

Trained teachers continue with sessions to further develop knowledge and skills in implementing the Reading Recovery program. These sessions are called continuing contact meetings which are three-hour sessions held four to six times a year, and are conducted by the Teacher Leaders at the Reading Recovery training site.

The Teacher Leaders continue their professional development by attending an annual Reading Recovery conference at an accredited training site for Teacher Leaders (TWU), an annual Reading Recovery Teacher Leader Institute as well as other related meetings of Reading Recovery personnel within the area and/or the state.

How effective was the training for Reading Recovery teachers?

The Reading Recovery program appears to have been more effective during the second year of implementation. This is probably a result of the amount of training that the teachers received. Because of this training, students are being discontinued earlier. The average length of a complete program (60 lessons) per student has decreased from 17.1 weeks to 13.3 weeks. This also allowed additional students to be served.

In addition, of the teachers in training (23) during the 1991-92, ninety-six percent (96%) indicated they had learned new strategies in reading. Of the ten new teachers in training in 1992-93, ninety percent (90%) indicated they had also learned new reading strategies. The results of the questionnaire point to an effective training program. This training is a collaborative effort between MISD, UT-Pan American, and Texas Woman's University at Denton.

What were the overall results of a questionnaire administered to administrators, teachers, parents, and Reading Recovery teachers?

The overall results indicate that most people who have contact with the Reading Recovery Program consider it to be a very good program (see figure 8).

FIGURE 8
QUESTIONNAIRE

	1991-92	1992-93
1. Administrators in Reading Recovery schools who consider the program very good.	100% n=(13)	88% n=(8)
2. Teachers who had students in Reading Recovery and consider the program very good.	85% n=(56)	91% n=(71)
3. Parents who had students in Reading Recovery and consider the program very good.	91% n=(118)	92% n=(106)
4. Teachers in Training who consider the program very good.	95% n=(23)	90% n=(10)

What were the primary budget components of the Reading Recovery Program?

Figure 9 breaks down the Reading Recovery costs for the last two years.

FIGURE 9
READING RECOVERY PROGRAM
PRIMARY BUDGET COMPONENTS

	1991-92	1992-93
Salaries	$452,055	$513,029
Materials	$ 19,800	$ 20,000
Travel	$ 3,000	$ 6,528
Tuition	$ 6,000	$ 3,600
Renovations	$ 5,000	N/A
Office materials	$ 2,500	$ 1,725
Duplicating	$ 4,000	$ 3,000
Consultants	$ 2,500	N/A
Bilingual materials	$ 200	$ 6,200
Total	**$495,055**	**$554,082**

How cost effective is the Reading Recovery Program?

Philip C. Dyer (1992) conducted a cost-effectiveness analysis of the Reading Recovery program on a national scale. The total costs per student for a Reading Recovery student and one who must be remediated by special programs or through retention is shown in Figure 10. Naturally these are estimates, but if Reading Recovery completes its goals, the savings should be substantial to the school district as well as to society.

FIGURE 10

READING RECOVERY SAVINGS:
COMPARISON OF TEACHER TIME AND SALARY COSTS
PER PUPIL, WITH GRADE RETENTION, CHAPTER 1, AND SPECIAL EDUCATION
IN THE ELEMENTARY GRADES (IN 1990-91 DOLLARS)

Intervention	Annual Cost	Average Years in Program	Total Program Time	Total Cost Per Student
Retention	$5,208	1 year	I,080 hrs	$5,208
Chapter 1	$ 943	5 years	525 hrs	$4,715
Special Ed.	$1,651	6 years	1,512 hrs	$9,906
Reading Recovery	$2,063	1/2 year	40 hrs	$1,063

(Philip Dyer, ERS, 1992)

How cost effective was the MISD Reading Recovery Program?

The annual cost per student in 1991-92 was $2,538. In 1992-93 the annual cost per student was $2,280. The decrease in cost per student was due to two factors-there were no start-up costs in 1992-93, and a larger number of students were served during the 1992-93 school year.

The annual cost per student is on par with the national average. If students are successful in school, the expenditures become quite effective when compared to the annual cost of retention, special education services, and Chapter 1 services.

When Reading Recovery is coupled with the Literacy Program, the annual cost per student drops to $1357 and proves to be very cost effective. Even when not coupled with the Literacy Program, the cost is still on par with the national average when inflation and salary increases are taken into account.

What new components to the Reading Recovery Program were added for the 1992-93 school year?

The Literacy Program was implemented at seven campuses and served 314 students. Spanish Reading Recovery served 28 students, but due to early transition of students to English reading in October 1992, the program was phased out by November.

LITERACY PROGRAM

What is the Literacy Program?

The primary objective of the Literacy Program is to reach more students who are at-risk, and to provide them with an intensive supplementary program so that they can perform on grade level in reading. Literacy Program teachers work with 6 students in 45 minute blocks three times daily. In addition, each teacher works with 4 Reading Recovery students for half an hour each on a daily basis for a grand total of 22 students. The same objectives incorporated in Reading Recovery are also incorporated in the Literacy Program although the format is different. All Literacy Program students (314) fall into three groups: first-grade waiting-list students; first grade retainees; and low-performing and graders.

How many students were served by how many teachers in the Literacy Program? How many were successfully discontinued? What was the average length of treatment, and how many students were retained?

An analysis of the data in Figure 11 for the Literacy Program reveals that a large number of students, 314, were served by only 12 teachers, and that the number of retentions was 11 out of 314 or 3.5%. There were 153 first-grade-waiting list students; 79 retainees; and 82 low-performing second graders. The program also facilitated the identification of resource students (37 or 12%). The percent of successfully discontinued students was 104 or 33%.

FIGURE 11

LITERACY PROGRAM

	1992-93
Total number of students served	314
Total number of Literacy Program teachers	12
Number of students who successfully discontinued	104 or 33%
Average length of complete program	14 wks
Number of students who went to resource	37 or 12%
Number of students who were retained	11 or 3.5%

How did the Literacy Program students fare on a pre-and post-diagnostic reading test?

A group of 132 discontinued students from the Literacy Program were tested on a three part diagnostic test. All three groups showed growth between the pre-and post-test. Of particular interest is the fact that the 58 retainees from the previous year (1991-92) showed the least growth. This test revealed that the retainees, after a second year of instruction, were still reading at a beginning Grade 1 level. The first graders on the Reading Recovery waiting list, who were served by the Literacy Program, were on-grade level at the end of the year. In addition, the low performing second graders were also reading on-grade level, that is at the end of the second grade school year reading level. See Figure 12 for a breakdown of pre-and post-test scores.

FIGURE 12

DIAGNOSTIC TEST FOR LITERACY PROGRAM DISCONTINUED STUDENTS

	Writing Vocabulary		Dictation		Text Reading Lvl	
	Pre	Post	Pre	Post	Pre	Post
Group I First Grade Waiting List N = 38	22.42	56.92	25.45	35.13	2.82	16.16
Group II First Grade Retainees N = 31	32.7	62.0	28.5	34.2	5.9	14.45
Group III 2nd Grade N = 36	37.41	64.81	30.62	34.24	7.51	20.23

If waiting list and 2nd grade students have achieved grade-level competency, why haven't retainees? There is much research to indicate that retention of students is extremely harmful. Not only does it increase the chances of students dropping out by 50 percent, but the evidence in this case is that the growth that occurred through the Literacy Program was not significant enough to turn around the negative effects of the students' retentions. Yet, the other two groups demonstrated almost two years reading growth as measured by the Diagnostic Test (see appendix for chart on Basal and Testing levels). To determine the reliability of these conclusions, ITBS scores were also analyzed. This analysis led to the following question.

What did ITBS scores show for students in the Literacy program?

Figures 13 & 14 depicts some anomalies. One would assume that retainees would perform lowest on the ITBS when compared to waiting list and 2nd graders. Yet, 2nd graders had the lowest average. In fact waiting list and retainee students are in the second quartile as is the MISD average, while 2nd grade students are in the bottom quartile. One must take into account that these students are only those that were discontinued from the Literacy Program. This means that these are the students who

completed the program and were successfully exited. Why did the Diagnostic Test, which showed 2nd grade students on-grade level in reading, apparently not correlate with the ITBS reading NCE's averages? It may be that the Diagnostic Test is not valid for second grade students. In fact, Marie Clay, founder of Reading Recovery, has indicated that the test is intended for first graders. Indications are that the Diagnostic Reading Test is not an accurate measure of grade equivalents, but more of a diagnostic test which indicates strategy deficiencies. The ITBS results also brings into question whether the Literacy Program is adequate to meet the needs of poor performing second graders. Perhaps at this level a different approach needs to be implemented. For waiting list students the intervention did appear to help. It was principally among waiting list students that the greatest success was demonstrated by improvement in both the Diagnostic Test reading levels and ITBS scores.
(see Figures 13 & 14).

FIGURE 13

SPRING 1993 ITBS FORM K READING SCORES
DISCONTINUED STUDENTS
GRADES 1 AND 2

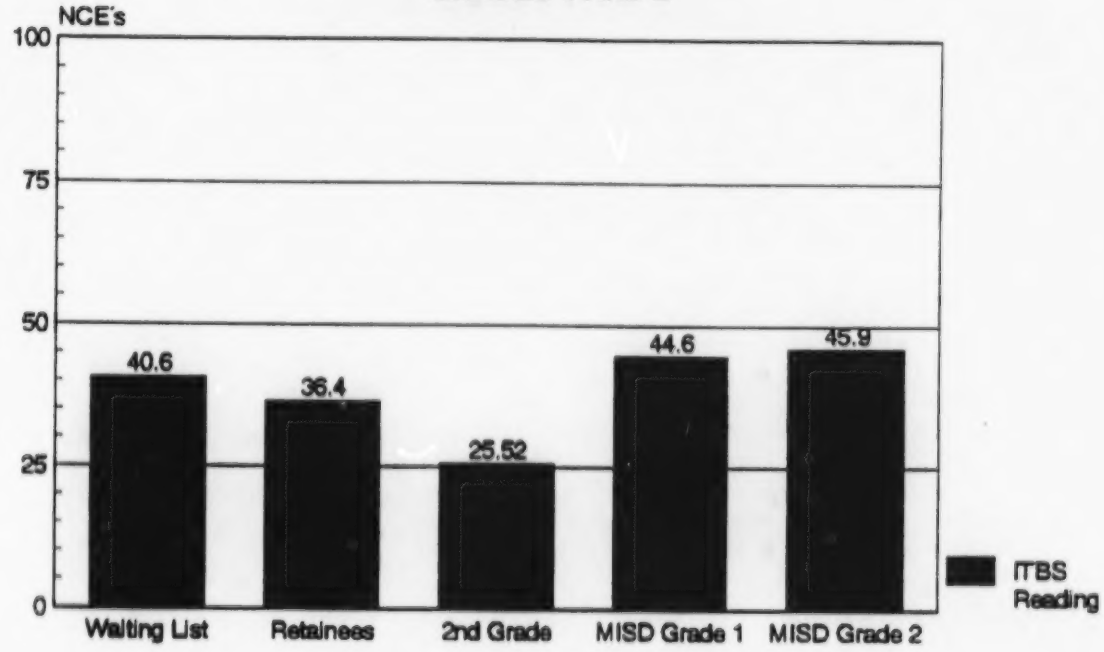


FIGURE 14

COMPARISON OF TEXT READING LEVEL AND ITBS SCORES FOR LITERACY STUDENTS

	Text Reading Level	ITBS (NCE's)
First Grade Waiting List Students N = 38	End of Grade 1	40.6
First Grade Retainees N = 31	Beginning of Grade 1	36.4
2nd Grade Students N = 36	End of Grade 2	25.5
MISD Grade 1 N = 1521	N/A	44.6
MISD Grade 2 N = 1439	N/A	45.9

What type of training was provided for Literacy Program teachers?

The Literacy Program teachers essentially received the same type of training that the Reading Recovery teachers received. In fact, all of the Literacy Program teachers were also Reading Recovery teachers. The training based on emergent learning was conducted by the Reading Recovery Teacher Leaders. Sessions were held monthly for three hours at a time during the 1992-93 academic school year.

What were the primary budget components of the Literacy Program teachers?

The principal budget component was for salaries. This amounted to a $201,540 allocation.

How cost effective is the Literacy program?

Taking into account Philip Dyer's analysis, the $642 cost per student for the Literacy Program is quite reasonable. Please refer to Figure 9 in the preceding pages and the cost benefit charts on pages iii and iv.

SPANISH READING RECOVERY PROGRAM

The Spanish Reading Recovery /Descubriendo La Lectura was implemented in the fall of 1992. The Spanish Reading Recovery /Descubriendo La Lectura is similar to the Reading Recovery Program, but conducted entirely in Spanish. The purpose of the program was to provide first language instruction through Reading Recovery strategies. Twenty-six students were served, but only one student was discontinued. The progam was halted because all participating students transitioned from Spanish reading to English reading in October. Thus, the Spanish Reading Recovery Program halted services to these students, and as such the program provided no data for analysis.

RECOMMENDATIONS

- Students should not be retained since no benefit is evident. A site based committee should be established to determine if students should be retained.

- Review and redefine the transition criteria for limited English proficient students.

- Reading Recovery is a supplementary program. The scheduling of students into Reading Recovery should not interfere with the regular language arts block. Program should be monitored closely by principals to ensure that Reading Recovery remains supplementary.

- MISD should explore other reading instructional programs/stategies for poor performing second graders.

- Expand the summer school Reading Recovery Program to include first grade retainees who may be promoted after successful exit from the program; and also to students who, although they have been promoted to second grade, will not be performing well at that grade level.

- MISD should further explore the use of the first grade Reading Recovery Diagnostic Test to determine the achievement of low-performing second graders.

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APPENDIX

TEXT READING SCORES
AND
CORRESPONDING BASAL LEVEL

TESTING LEVEL SCORES	BASAL LEVEL
1 & 2	Readiness
3 & 4	PP1
5 & 6	PP2
7 & 8	PP3
9 - 12	Primer
14 - 16	Grade 1
18 - 20	Grade 2
22 - 24	Grade 3
26	Grade 4
28	Grade 5
30	Grade 6
32	Grade 7
34	Grade 8

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